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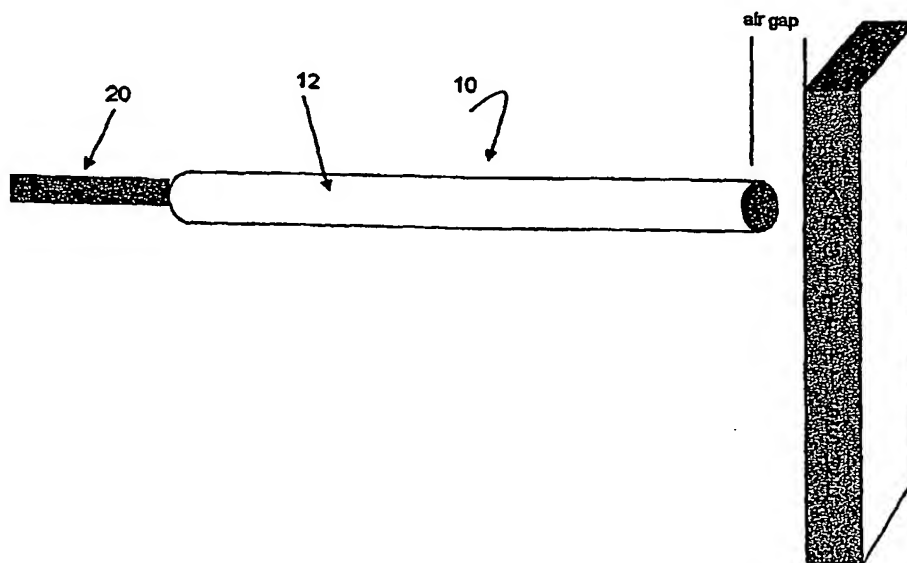
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(54) Title: **METHOD AND APPARATUS FOR MEASURING TISSUE PERFUSION**



(57) Abstract: Apparatus for measuring microcirculatory flow of a target tissue without the necessity for direct contact of a probe is disclosed. The apparatus includes a probe (10) arranged to generate a pulsed source of infrared light (16) and a matched infrared sensor (18) which transduces variations in the reflected light to an electric signal and a signal processor which compares the signal at a first time when the pulsed light source is on with a second time when the pulsed light is off. The signal is processed to reduce or ameliorate the effect of the ambient light in the signal and the Tissue Perfusion Index (TPI) is then calculated. Without the need to contact tissue, the apparatus can be used to measure the TPI for chronic ulcers on the extremities, the surface of the retina, the vascular pulp within a tooth or the surface of internal organs accessed by fiber optic or endoscopic means.



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